



200 Exelon Way
Kennett Square, PA 19348

www.exeloncorp.com

10 CFR 50.55a

NMP2L2851

August 25, 2023

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Limerick Generating Station, Unit 1
Facility Operating License No. NPF-39
NRC Docket No. 50-352

Nine Mile Point Nuclear Station, Unit 2
Renewed Facility Operating License No. NPF-69
NRC Docket No. 50-410

Subject: Relief Request Associated with Successive Inspections for Generic Letter
88-01 / BWRVIP-75-A Augmented Examinations

In accordance with 10 CFR 50.55a(z)(1) Constellation Energy Generation, LLC (CEG) is requesting relief from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components." Specifically, CEG is requesting relief from the successive inspection requirements of ASME Section XI, IWB-2420 for the remainder of the current fourth interval and until the next required inspection is performed per the requirements of BWRVIP-75-A in the fifth interval at Limerick Generating Station, Unit 1; and Nine Mile Point Nuclear Station, Unit 2.

We request your approval by January 15, 2024, which is prior to the end of the current inspection period in which these successive inspections would be required at Limerick Generating Station, Unit 1. There are no regulatory commitments in this letter.

If you have any questions concerning this letter, please contact Tom Loomis at Thomas.loomis@constellation.com.

Respectfully,

Darani Reddick
Director - Licensing & Regulatory Affairs
Constellation Energy Generation, LLC

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Attachment: Proposed Alternative

cc: Regional Administrator, Region I, USNRC
USNRC Senior Resident Inspector, LGS
USNRC Senior Resident Inspector, NMP
USNRC Project Manager, LGS
USNRC Project Manager, NMP
Director, Department of Environmental Protection | Bureau of Radiation Protection
A. L. Peterson, NYSERDA

ATTACHMENT
Proposed Alternative

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Request for Relief from Successive Inspections for Generic Letter 88-01 / BWRVIP-75-A Augmented Examinations in Accordance with 10 CFR 50.55a(z)(1)

1.0 ASME CODE COMPONENTS AFFECTED:

Component: Limerick Generating Station (LGS), Unit 1 – Weld No. DCA-319-1 N5A
Code Class: 1
Examination Category: AUG
Item No.: 01,07
IGSCC Category: Category C
Description: Core Spray Injection Nozzle-to-Safe End Weld

Component: Nine Mile Point Nuclear Station (NMP), Unit 2 – Weld No. 2RPV-KB11
Code Class: 1
Examination Category: R-A
Item No.: R1.16
IGSCC Category: Category D
Description: Reactor Coolant System Inlet Nozzle N2J-to-Safe End Weld

2.0 APPLICABLE CODE EDITION AND ADDENDA:

<u>PLANT</u>	<u>INTERVAL</u>	<u>EDITION</u>	<u>START DATE</u>	<u>CURRENT END DATE</u>
Limerick Generating Station, Unit 1	Fourth	2007 Edition, through 2008 Addenda	February 1, 2017	January 31, 2027
Nine Mile Point Nuclear Station, Unit 2	Fourth	2013 Edition	October 6, 2018	August 22, 2028

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3.0 APPLICABLE CODE REQUIREMENT:

ASME Section XI IWB-2420(b) requires:

“(b) If a component is accepted for continued service in accordance with IWB-3132.3 or IWB-3142.4, the areas containing flaws or relevant conditions shall be reexamined during the next three inspection periods listed in the schedule of the Inspection Program of IWB-2400.”

4.0 REASON FOR REQUEST:

As discussed in the Reference 1 letter for LGS, Unit 1, an analytical evaluation was performed and submitted to the NRC to disposition an embedded flaw associated with the Core Spray Injection nozzle-to-safe end weld (DCA-319-1 N5A). The flaw was characterized as being circumferentially oriented and measured by ultrasonic testing to be approximately 2.0 inches long, 0.3 inches through wall, and has a surface separation distance of 0.35 inches from the inside surface. The flaw is located in the weld material. This is an embedded flaw and does not display any characteristics of an IGSCC flaw. Instead, this is likely a construction flaw that is now more clearly visible due to the change in ultrasonic examination technology. The nozzle-to-safe end weld is a dissimilar metal weld joining the low alloy steel nozzle to the Inconel safe end with an Alloy 82 weld. The 2020 flaw was identified during previous inservice inspections, sized, and found acceptable per the requirements of IWB-3514. The change in size during the 2020 refueling outage is attributed to the use of an automated phased array technique, which provided more accurate sizing.

As concluded in the evaluation of Reference 1, the required safety factors will be maintained during operation with this flaw over the next five operating cycles (10 years), by which time the weld/flaw will be reexamined in accordance with BWRVIP-75-A requirements.

As discussed in the Reference 2 letter for NMP, Unit 2, an analytical evaluation was performed and submitted to the NRC to disposition an embedded flaw associated with the reactor recirculation discharge (reactor pressure vessel inlet) N2J nozzle-to-safe end weld (2RPV-KB11). The flaw was characterized as circumferentially oriented and measured by ultrasonic testing to be approximately 6.1 inches long, 0.3 inches through wall, and a surface separation distance of 0.5 inches from the outside surface. The flaw is located at the weld centerline (nozzle side), which would place it in the weld material. This is an embedded flaw and does not contain any characteristics of an IGSCC flaw. Instead, this is likely a construction flaw that is now more clearly visible due to the change in ultrasonic examination technology. The nozzle-to-safe end weld is a dissimilar metal weld joining the low alloy steel nozzle to the stainless steel safe end with an Alloy 82 weld. The embedded indication was identified during previous inservice inspections, sized, and found acceptable per the requirements of IWB-3514. The change in size during the 2020 refueling outage is attributed to the use of an automated phased array technique, which provided more accurate sizing.

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As concluded in the evaluation of Reference 2, the required safety factors will be maintained during operation with this flaw over the next five operating cycles (10 years), by which time the weld/flaw will be reexamined in accordance with BWRVIP-75-A requirements.

Constellation Energy Generation, LLC (CEG) maintains its position that these examinations were performed in accordance with the requirements of BWRVIP-75-A; therefore, this inspection was outside the scope of the ASME Code and does not require successive inspections in accordance with ASME Section XI. However, based upon discussions with the NRC, CEG is nevertheless requesting relief from the successive inspection requirements of ASME Section XI, IWB-2420(b) for the remainder of the current fourth interval and until the next required inspection is performed per the requirements of BWRVIP-75-A in the fifth interval at LGS, Unit 1, and NMP, Unit 2.

5.0 **PROPOSED ALTERNATIVE AND BASIS FOR USE:**

CEG is requesting relief from the successive inspection requirements of ASME Section XI, IWB-2420(b) for the remainder of the current fourth interval and until the next required inspection is performed per the requirements of BWRVIP-75-A in the fifth interval at LGS, Unit 1 and NMP, Unit 2 based on the previously submitted analytical evaluations (Reference 1 and 2). These analyses demonstrate that the required safety factors will be maintained during operation with the embedded flaws over the next five operating cycles (10 years), by which time the weld/indication will be reexamined in accordance with BWRVIP-75-A requirements. The previously submitted analyses and reexamination at the frequency required by BWRVIP-75-A will provide an acceptable level of quality and safety.

6.0 **DURATION OF PROPOSED ALTERNATIVE:**

The proposed Alternative is requested for the remainder of the current fourth interval and until the next required inspection is performed per the requirements of BWRVIP-75-A in the fifth interval at LGS, Unit 1 and NMP, Unit 2.

7.0 **PRECEDENT:**

None

8.0 **REFERENCES:**

1. Letter from D. Helker (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Submittal of Analytical Evaluation of Core Spray Injection Nozzle-to-Safe End Weld (N5A)," dated April 15, 2020 (ML20106E828)
2. Letter from D. Gudger (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Submittal of Analytical Evaluation of Recirculation Discharge Nozzle-to-Safe End Weld Indication," dated April 9, 2020 (ML20100F682)